

REMARKS

Claims 1-16, 41, and 42 are currently pending in this application. Claims 1-16, 41 and 42 stand rejected. Independent Claims 1, 41, and 42 have been amended.

Amendment to the Specification

The specification has been amended as indicated above by more clearly defining the term “multi view image” as a “spatially accurate wavelength-resolved image” as indicated above. Support for this amendment may be found at least in Figures 3 and 5 as well as in paragraphs [0046], [0047], [0055], and [0058]. No new matter has been added.

Claim Rejections I

Claims 1-5, 9, 10, 12-16, 41, and 42 currently stand rejected under 35 U.S.C. §103(a) as being unpatentable over Batchelder (U.S. Patent No. 5,689,333; “Batchelder”) as evidenced by Rigler (U.S. Pub. No. 2002/0114224; “Rigler”) in view of Montagu (Int. Pub. No. WO 96/37797; “Montagu”) and Garini (U.S. Pub. No. 2002/0176084; “Garini”).

Independent Claims 1, 41, and 42

Independent Claims 1, 41, and 42 have been amended by including the limitation “producing a spatially accurate wavelength-resolved image of said specimen”. As defined above in the Amendment to the Specification, a spatially accurate wavelength-resolved image is an image of a sample that is formed from multiple “frames” wherein each frame has plural spatial dimensions and is created from photons of a particular

wavelength (or wave number) or from photons in a particular wavelength band (or wave number band) so that the frames may be combined to form a complete image across all wavelengths (wave numbers) of interest. Neither Batchelder, Rigler, Montagu, or Garini, either separately or in combination, disclose a spatially accurate wavelength-resolved image or producing a spatially accurate wavelength-resolved image of the specimen, as claimed in each of amended Claim 1, 41, and 42.

In fact, Batchelder teaches away from producing a spatially accurate wavelength-resolved image at col. 10 ll. 52-65. Here, Batchelder discusses the use of “binning” where “several adjacent pixels are treated as a group” and software is used to “add[] together the data which is captured from the consecutive pixels in the group, and treats the result as one data point”. The consequence of doing so necessarily destroys any spatial accuracy of the resulting data and hence it is impossible to create a spatially accurate wavelength-resolved image. This deficiency in Batchelder is not overcome by any of the cited art.

Montagu also does not teach or suggest a spatially accurate wavelength-resolved image. Instead, Montagu teaches a superposition of images on a high definition video display to combine the various monochromatic images produced with a monochromatic optical system (Montagu, p. 4 ll. 16-29). In other words, Montagu merely takes different monochromatic images and overlays one on top of the other using a conventional color control system of a standard video monitor to produce a composite monochromatic image which is nothing more than a typical video image (see Montagu p. 13 ll. 14-33: red, green, blue images are taken and “the computer 16 [] superpose[s] those images via the

color control system of the video monitor 19" - like any typical video signal – thereby reconstructing a white light image of the sample like any video picture). This is not a spatially accurate wavelength-resolved image as defined above.

The Office Action at page 3 line 14 through page 4 line 5, posits that the deficiencies in Batchelder may be easily overcome by the obvious combination of the Batchelder system with the image processing system of Montagu and by replacing the rotating filter wheel in Batchelder with the non-rotating filter of Garini. Yet, there is no mention of rectifying the disparate illumination sources of Batchelder (laser; ref. 10 in Fig. 1 of Batchelder) and Montagu (white light; Montagu at p. 11 line 25); no mention of replacing the filter wheel in Montagu with a non-rotating filter; no mention of the need for a multiple monochromatic lens assembly in Montagu in combination with the filter wheel in order to produce a monochromatic data set or image (Montagu p. 11 ll. 18-27; p. 13 ll. 14-33; where such structure is totally incompatible with the Batchelder system (Fig. 1 of Batchelder and described at col. 2 line 38 through col. 3 line 22)); and, as stated above, no disclosure, teaching, suggestion, or contemplation of producing a spatially accurate wavelength-resolved image.

Therefore, for at least the reasons detailed above, the systems and/or teachings of Batchelder, Montagu, and Garini are quite incongruent and are not compatible nor are they combinable as suggested. Furthermore, even if one were to use hindsight and attempt to combine Batchelder, Montagu, and Garini as suggested in the Office Action the result would still not produce the apparatus of independent Claims 1, 41, or 42.

Accordingly, the rejection under 35 U.S.C. §103(a) must be withdrawn and Applicant respectfully requests the withdrawal of this rejection.

Dependent Claims 5, 9, 10, 12-16

Each of the above claims is dependent, either directly or ultimately, from Claim 1 and therefore for the reasons stated above are patentable by virtue of the dependence from Claim 1 without regard to the additional patentable limitations contained respectively therein. Accordingly, the rejections under 35 U.S.C. §103(a) must be withdrawn and Applicant respectfully requests the withdrawal of these rejections.

Claim Rejections II

Claims 6-8 currently stand rejected under 35 U.S.C. §103(a) as being unpatentable over Batchelder as evidenced by Rigler in view of Montagu and Garini as applied to Claim 1 further in view of Treado (U.S. Patent No. 6,002,476; "Treado").

Each of the above claims is dependent, either directly or ultimately, from Claim 1 and therefore for the reasons stated above are patentable by virtue of the dependence from Claim 1 without regard to the additional patentable limitations contained respectively therein. The addition of the reference to Treado, which is relied upon in the Office Action to show use of a liquid crystal tunable filter or acousto-optic tunable filter, does nothing to overcome the above-stated deficiencies of Batchelder, Rigler, Montagu, and Garini. Accordingly, the rejections under 35 U.S.C. §103(a) must be withdrawn and Applicant respectfully requests the withdrawal of these rejections.

Claim Rejections III

Claim 11 currently stands rejected under 35 U.S.C. §103(a) as being unpatentable over Batchelder as evidenced by Rigler in view of Montagu and Garini as applied to Claim 1 further in view of Fillard (U.S. Patent No. 5,770,856; "Fillard").

Claim 11 depends ultimately from Claim 1 and therefore for the reasons stated above is patentable by virtue of the dependence from Claim 1 without regard to the additional patentable limitations contained in Claim 11. The addition of the reference to Fillard, which is relied upon in the Office Action to show the use of a gallium arsenide detector to collect light, does nothing to overcome the above-stated deficiencies of Batchelder, Rigler, Montagu, and Garini. Accordingly, the rejections under 35 U.S.C. §103(a) must be withdrawn and Applicant respectfully requests the withdrawal of these rejections.

CONCLUSION

Applicant respectfully submits that all of the claims are in condition for allowance.
A notice to this effect is respectfully requested.

If any point remains that is deemed best resolved through a telephonic conversation, the Office is hereby requested to contact the undersigned directly.

If a Petition for an Extension of Time is necessary for the papers transmitted herewith to be timely filed, this transmittal is to be considered as a Petition to extend the response period by the amount of time needed for the papers to be timely filed.

Respectfully submitted,

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Mark C. Comtois
Reg. No. 46,285

DUANE MORRIS LLP
505 9th Street, N.W., Suite 1000
Washington, DC 20004
Telephone: (202) 776-7800
Facsimile: (202) 776-7801

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